

Meeting Summary

eHealth Technical Advisory Committee February 3, 2010 10:00-2:30PM

Please refer to the straw man technical architecture document for additional information.

Quorum

Quorum was achieved.

Introduction

Jonah Frohlich thanked participants for their willingness to convene, and expressed the importance of TAC helping to articulate the business needs of stakeholders regarding health information exchange. In particular, what are the business drivers that HIE must help to solve, and what do stakeholder institutions need from HIE? Given that (1) the HIE Cooperative Agreement Program represents a four-year grant, after which there will be no more federal funding, and (2) the state is not in a financial position to support this effort itself, the infrastructure built will be long-lasting and sustainable only if it is capable of supporting meaningful use and bringing value to stakeholder organizations.

Business Needs Brainstorming Session

After brief introductions of participants, a brainstorming session was held during which TAC members were invited to enumerate the business needs of their organizations for health information exchange. The following represent the ideas put forth by the committee, organized into common themes. In some cases, ideas expressed by separate committee members are combined for conciseness. NOTE: there was not necessarily consensus among members of the TAC on these points.

Desired Goals/Features of the HIE Infrastructure

- Provides mechanism for continuous quality improvement, including continuity of care and decision support
- Delivers clinical information to the point of care, including a complete aggregated patient record
- Exchanged data is comprehensive, real-time, and reliable
- Avoids introducing unreliable data and provides a mechanism for recovering from errors
- Eliminates faxes in healthcare
- Builds upon capability for prevention and chronic care management
- Aggregates data to accomplish population health within a federated model
- Eases required participation in public health programs from the provider's perspective
- Represents a single, standards-based highway through which all health information flows
- Extends continuity of care and care coordination to non-clinical health providers, such as case workers and social services personnel, who are of particular importance to vulnerable populations, e.g. children in foster care.
- Provides easy access to clinical data from different sources, i.e. users should be able to make one inquiry to locate and retrieve all of the data pertinent to the patient.
 - This may suggest a "push" model, not just a "pull" model.
 - The complexities of storing clinical data in repositories will need to be considered.
- Mechanisms and incentives are needed to ensure that exchanged data is actually used.

Ideas for Policy

- Rules for HIE should be standardized across all media so that everything can be exchanged electronically, eliminating the need for non-electronic means of HIE (e.g., fax).
- A patient's health information should be handled in the same manner, regardless of the medium.

Strategic Approaches and Advice

- Provide services that accomplish administrative simplification (e.g., services around eligibility checking) is a way to fund other aspects of HIE.
- Initial focus on offering a "killer app" for HIE and targeting low-hanging fruit will help to drive adoption.
- Developing a way to tie the flow of claims data and clinical data together could help fund HIE.
- Demonstrated value can be found in focusing on the delivery of data to the point of care at the highest acuity, e.g. ED.
- Start simple with what can easily be captured and build a pathway to comprehensive, real-time, reliable data.
- The top priority should be to accomplish the exchange of some health information quickly, with the understanding that additional functionality will be added in future iterations.
- Maintain cost neutrality or generate cost savings.
 - Creates administrative savings that are redirected to quality improvement
 - Savings should not be judged only on a short-term basis, but medium- to long-term as well
- Offer services that reflect aligned incentives for use.
- Align with NHIN as closely as possible, with clear articulation of ROI for any divergence.

Specific Needs and Ideas for Services

- Multi-payer web-based administrative portal for providers that improves efficiencies and reduces administrative costs
- Cost-effective patient identification/registry as a core service
- Connection of community PCPs to county hospitals for patient care notes and transitions of care
- Access by public health agencies to a targeted set of lab data. This would be invaluable for the purposes of surveillance, trending, establishing baselines, directing limited resources to targeted areas of need, and monitoring of reportable diseases.
- Access by public health agencies to selected clinical data for the purposes of performing syndromic surveillance, diagnosing and treating outbreaks/communicable diseases, performing QA functions, addressing equality and disparity, connecting patients to available services at the point of care, conducting community health assessment.
- Delivery of standardized chronic disease and immunization data to registries
- "Clearinghouse" providing medical groups and IPAs with centralized access to standardized (e.g., 271 roster) eligibility and benefits data in batch form, to help adjudicate claims.
- Centralized source for prescription utilization data to IPAs/MGs/MSOs.

- Enhancement of the patient record with the appropriate documentation of out-of-network care in order to more accurately report P4P measures.
- Transformation engine that accepts lab result data in any format that is provided by a hospital/small lab to a standard format that is accepted by EHRs, disease registries, etc. The rationale is that small local labs cannot provide their data in the formats needed by others for electronic processing. However, it is unclear who will pay for this service.
- Service that manages the automatic submission of lab results for reportable tests to public health agencies on behalf of physicians according to the requirements of California state law. (This goes beyond the meaningful use specifications, which deal only with submissions by hospital labs.)
- A more general service for the above is a “Rules Engine” for managing where and when health information needs to be exchanged. The rationale is to offload to a centralized service the management of the myriad of business rules regarding what health information needs to be exchanged.

Specific Recommendations for TAC

- Identify constraints that will impact the design of the technical solutions, such as regulations, laws, governance issues, etc.
- Articulate standards to be used in the design of HIE services.
- Develop a process to prioritize functions and services.
- Develop a 5-year roadmap that prioritizes desired HIE services and places them in proper sequence.

Review of Straw Man Architecture

Walter provided a brief review of the architecture as described in the straw man draft document dated 1/25/10. The details of his review are in the PPT presentation that accompanied the meeting materials and has been posted to the project space. The three Core Cooperative Shared HIE Services in the draft architecture are the *Entity Registry Service*, *Provider Directory Service*, and *Provider Identity Service*.

Entity Registry Service

The Entity Registry Service is a trusted “Certificate Authority” for entities authorized to exchange health information using the CS-HIE resources. The registry consists of a repository of valid, active certificates for these entities which bind an entity identifier to entity attributes (name, address, etc.).

Provider Directory Service

The Provider Directory Service is a centrally hosted repository of Provider Directory entries for entities that cannot or choose not to host their own Provider Directory. Entries are “trusted bindings” between a provider and a set of addresses/protocols for specific transactions.

Provider Identity Service

The Provider Identity Service is a centralized, trusted service for provisioning and authenticating providers involved in HIE transactions when the providers’ entities cannot authenticate them in a trusted manner. Use of the Provider Identity Service is entirely optional, and entities may provision and authenticate their own providers. The service is available to providers from entities who would not otherwise be authorized for HIE transactions by other entities due to trust issues.

Necessity of Current Core Services

There was consensus among the group that these services were essential and foundational to any health information exchange between organizations.

Additional Core Services

There was broad support among members of the group for a core service that handles patient identification, although there were some cost and feasibility concerns regarding such a service. This service would create the ability to uniquely identify patients for the purposes of associating patients with clinical and administrative data. The proposed characteristics of this service include:

- Assumption of no universal patient identifier.
- Reliance on a “composite” identity solution, in which identity is established by a combination of identifying attributes (e.g., a set of six).
- Possible inclusion of a VUHID, although the relative value of this is debatable.
- Identification based on probabilistic matching, the error parameters of which TAC will need to elaborate.

The business reasons for creating such a service include enabling consent management, eligibility/benefits lookups, and other services provided through the HIE Cooperative Agreement program that rely on patient identification.

TAC will ask the TWG to propose potential solutions along with associated costs.

Prioritization of HIE Support for Meaningful Use

There was recognition by the group that (1) the first version of the architecture should focus on the support of meaningful use, and (2) a roadmap was needed that delineated stakeholder priorities while communicating the rationale for prioritization and sequencing of some services over others. The group turned to evaluating the list of criteria for meaningful use that require some element of HIE to complete while also thinking about what functionality, if any, would be needed to create a compelling service that adds value. See table below.

The following criteria were used to evaluate each meaningful use function with respect to potential support through CS-HIE shared services:

- Relative value (Low-High): how much value would be created by the development of a statewide service to support the given meaningful use function given the current market/landscape?
- Relative effort (Low-High): how much effort would it require to develop a statewide service to support the given meaningful use function?
- Alignment of Incentives to Use (Low-High): how well-aligned would the incentives of various stakeholders be to use the proposed service?
- Must have / Nice to have: How critical is this service to enable other elements of HIE, encourage adoption, meet regulatory requirements, etc.? Note: this criterion was at times called “Core/Non-Core” during the meeting. We’re avoiding this latter term here since it could lead to confusion with the term “Core Services,” designates services that are foundational to HIE.
- Sequence (Primary or Secondary): Where in the natural sequence does the proposed service fall? Is this a service that needs to be developed before (1°, primary) or after (2°, secondary) other services have been established?

Prioritization of Support for Meaningful Use Criteria via CS-HIE Services

Meaningful Use Criterion	Relevant HIE Capability	Relative Value	Relative Effort	Aligned Incentives	Must Have/ Nice to Have	Sequence
1. Generate and transmit permissible prescriptions electronically	Infrastructure for an EHR or EHR module to correctly address and securely transmit an electronic prescription to the desired dispensing pharmacy in the specified standard format. The transmission may occur directly or via a third party.	Low (already requirement for EHRs)	High			
2. A. Incorporate clinical lab-test results into EHR as structured data B. Capability to provide electronic submission of reportable lab results to public health agencies and actual submission where it can be received	<p>Infrastructure for labs to securely transmit structured lab results to the EHR or EHR module of the appropriate provider(s) in the specified standard format. The transmissions may occur directly between labs and EHRs or via a third party.</p> <p>Infrastructure to securely transmit lab results from any hospital laboratory to the appropriate public health agency in a specified standard format (including required de-identification of the data)</p> <p><i>Note: the service being proposed needs to be articulated.</i></p>	High	Medium	High	Unknown	

Meaningful Use Criterion	Relevant HIE Capability	Relative Value	Relative Effort	Aligned Incentives	Must Have/ Nice to Have	Sequence
3. Check insurance eligibility electronically from public and private payers	<p>Infrastructure to securely query a payer, both manually via a web browser and automatically via EDI, in the specified standard formats and to receive an electronic response, both via a web browser and automatically via EDI, in the specified standard formats. These transactions may occur directly between providers and payers or via a third party.</p> <p>Should include effective date and benefits details, at a minimum.</p> <p>Structured data is preferred.</p>	High	High	High	Unknown	
<p>4. Submit claims electronically to public and private payers.</p> <p><i>Note: In the interest of time, the decision was made to defer discussion of this point, since there already are existing solutions in use.</i></p>	<p>Infrastructure to securely transmit claims from a provider organization to a payer in the specified standard format. These transactions may occur directly between providers and payers or via a third party.</p>	Deferred				

Meaningful Use Criterion	Relevant HIE Capability	Relative Value	Relative Effort	Aligned Incentives	Must Have/ Nice to Have	Sequence
<p>5. A. Provide patients with an electronic copy of their health information/discharge instructions upon request (assumption of providing it electronically over a network).</p> <p>B. Provide patients with timely electronic access to their health information within 96 hours.</p>	<p>HIE capability is required if the electronic copy is transmitted to the patient via a network, either directly (e.g. via secure email) or through a 3rd-party patient-authorized entity (e.g., a PHR). In these cases, the capability is required to correctly address and securely transmit the information in an accepted format to the patient or the patient-authorized entity.</p> <p><i>Does data need to be structured?</i></p> <p><i>Does information need to be specific to the patient's language to conform to statute?</i></p>	<p>Data Access Service: No consensus</p> <p>Language Translation: High</p>	<p>Data Access Service: Very High</p> <p>Language Translation: Very High</p>			2°
<p>6. A. Capability to exchange key clinical information among providers of care and patient-authorized entities electronically</p> <p>B. Provide summary-of-care record for each transition of care and referral</p>	<p>Infrastructure to correctly address and securely transmit the specified types of information (problem list, medication list, etc.) in an acceptable data format from one provider to another, from a provider to a patient-authorized entity, or from a patient-authorized entity to a provider.</p> <p>HIE capability is required if (1) the transition of care or referral is made to a different organization and (2) if the summary-of-care record is communicated in electronic format over a network. In this case, the capability is required to correctly address and securely transmit the record to the new or referred site of care in a specified data format.</p>	High	High	High	Must Have	1°

Meaningful Use Criterion	Relevant HIE Capability	Relative Value	Relative Effort	Aligned Incentives	Must Have/ Nice to Have	Sequence
<p>7. Capability to submit electronic data to immunization registries and actual submission where required and accepted</p> <p><i>[assumption of “EDI” access to the registry, and requirement for bi-directional exchange of immunization data]</i></p>	Infrastructure to securely transmit immunization events from any hospital or outpatient facility to the appropriate immunization registry for the appropriate patient in a specified data format	Medium “Mixed”	Low	High	Nice to have	2°
<p>8. Capability to provide electronic syndromic surveillance data to public health agencies and actual transmission according to applicable law and practice</p> <p><i>Note: There is a question of how this criterion may change after the NPRM comment period. The group decided to defer discussion on this until further information is available.</i></p>	Infrastructure to securely transmit relevant clinical data from any hospital or outpatient facility to the appropriate public health agency in a specified standard format (including required de-identification of the data)	Deferred				

Summary of Key Questions/Issues/Decision Points:

- The need for an additional core service that handles patient identification was articulated. The proposed characteristics of this service include:
 - Assumption of no universal patient identifier.
 - Reliance on a “composite” identity solution, in which identity is established by a combination of identifying attributes (e.g., a set of six).
 - Possible inclusion of a VUHID, although the relative value of this is debatable.
 - Identification based on probabilistic matching, the error parameters for which TAC will need to elaborate.
- There was consensus that the current Core Services as described are necessary architectural components to enable HIE at the statewide level.
- The Ideas suggested for additional services beyond those needed to support meaningful use will need to be prioritized by TAC after it completes its prioritization of the meaningful use matrix.

Next Steps

- A first draft of the state Operational Plan, which will include elements from the various CHHS eHealth workgroups, is currently being put together and will most likely be released for committee review on Monday.
- Members of the group agreed that content from this meeting should be incorporated into the draft of the straw man technical architecture in order to better contextualize the purpose and goals of the technical architecture. Therefore, release of the document to the Public Review Group will be postponed.
- The meaningful use prioritization matrix produced at this meeting will be circulated and revisited at the next conference call.
- TAC will ask TWG to propose one or more technical solutions and the estimated costs of those solutions that can meet the articulated need for a patient identification service as part of the CS-HIE Core Services.
- Next meeting is scheduled for 2/9 12:00-1:30PM.

Members Present

Name	Title and Organization
Bill Beighe	CIO, Physicians Medical Group of Santa Cruz
Jonah Frohlich	Deputy Secretary of Health IT, CHHSA
Jeff Guterman	Medical Director, LA County Dept. of Health Services
Terri Hearn	National Manager for Health Information Technologies, Wellpoint
Ron Jimenez	Associate Medical Director, Clinical Informatics, Santa Clara Valley Health & Hospital System
David Joyner	SVP, Network mgmt, Blue Shield of California
Rama Khalsa	Health Director, County of Santa Cruz
Laura Landry	Executive Director, Long Beach Network for Health
John Mattison	CMIO, Southern California Region Kaiser Permanente
Michael Minear	CIO, UC Davis Health System
Lee Mosbrucker	Enterprise Architect, CA Office of the Chief Information Officer
Glen Moy	Sr. Program Officer, California Health Care Foundation
Kim Ortiz	Chief Deputy Director, Medi-Cal
Ray Otake	CIO, Community Health Center Network
Ray Parris	CIO, Golden Valley Health Center
Angela Roberts	VP Administrative Services, Altamed Health Services Corporation
Wayne Sass	CIO and Privacy Officer, Nautilus Healthcare Management Group
Lucia Savage	Assoc. General Counsel, United Health Care
Linette Scott	Deputy Director, Department of Public Health
Terri Shaw	Deputy Director, Children's Partnership
Bill Spooner	CIO, Sharp Healthcare
Scott Whyte	Sr. Director for Physician and Ambulatory IT Strategy, Catholic Healthcare West
Tom Williams	Executive Director, Integrated Healthcare Association

Staff Present

Name
Walter Sujansky
Peter Hung
Joseph Ray